Data Validation Checklist
Inorganic Analyses

Project:	35TH Avenue Superfund Site	Project No:	15268508.20000
Laboratory:	TestAmerica - Savannah, GA	Job ID.:	680-91719-3
Method:	SW-846 6010C and 7471B, and EPA 200.7 and 245.1	Associated Samples:	Refer to **Attachment A** (Sample Summary)
Matrix:	Soil and Water	Dates Collected:	06/24/2013 & 06/25/13
Reviewer:	Karen Marie Trujillo, URS Group	Date:	07/10/13
Concurrence[1]:	Martha Meyers-Lee, URS Group	Date:	07/12/2013

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample preservation requirements met? If pH of aqueous sample >2 and was not adjusted by laboratory prior to analysis, J- flag positive results and R- flag non-detect results.	✓				
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?	✓			A rinsate blank, 062513-RB-Shovel (680-91719-35), was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC) record. The Sample ID was added to COC record by laboratory.	
4. Do any soil/sediment samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Have any technical holding times, determined from date of collection to date of analysis, been exceeded? (Hg: ≤28 days, other metals: ≤6 months). If not, then J- flag positive results and R- flag non-detect aqueous results.		✓			
6. Were results for all project-specified target analytes reported?	✓				
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?		✓		The MDL (0.59 mg/Kg) for arsenic is greater than the Resident Soil RSL (0.39 mg/Kg). A RSL does not exist for total chromium; however, the total chromium MDL (0.5 mg/Kg) is greater than the hexavalent chromium Resident Soil RSL (0.29 mg/Kg).	
8. Were method blank (MB) prepared at the appropriate frequency (one per 20 samples, batch, matrix, and level)?	✓				
9. Was a calibration blank (ICB/CCB) analyzed at the beginning, after every 10th sample, and at the end of each analytical run?	✓				

[1] Independent technical reviewer

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
10. Were target analytes detected in the method and/or calibration blanks?		✓		Target analytes were not detected in the method blanks. Calibration blanks were not evaluated.	
11. Were target analytes reported in equipment/rinsate blanks analyses above the DL?		✓		According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. Rinsate blank 062513-RB-Shovel (680-91719-35) was collected during the week of 06/24/2013. Target analytes were not detected during the EPA Methods 200.7 and 245.1 analyses of the rinsate blank, and all results were reported under this Test America Job ID.	
12. Were contaminants detected in samples below the blank contamination action level? o If blank result > RL, • Flag sample results ≤ RL with a U • Flag positive sample results > RL and ≤10x blank result , as J+ positive results o If blank result ≤RL, • Flag sample results ≤ RL with a U • Flag positive sample results > RL and <10x blank result , as J+ positive results			✓	Method and rinsate blank contamination does not exist.	
13. Are there negative laboratory blank results with the absolute value ≤RL? If yes, then flag positive and non-detect sample results that are < 10x absolute blank value as J- and UJ, respectively.		✓			
14. Was a field duplicate analyzed?		✓			
15. Was precision deemed acceptable as defined by the project plans?			✓		
16. Were initial and continuing calibration standards analyzed at the lab/project-specified frequency for each instrument? o 6010C: • ICAL: Blank and one standard • ICV initially, and CCV every 10th sample and at the end of the analytical run • Lower Limit of Quantitation Check Sample (CRI) to be analyzed after establishing lower laboratory reporting limits and as needed o 7471A: • ICAL: Blank and five standards • ICV initially, and CCV every 10th sample and at the	✓			• 200.7: 06/28/2013-06/29/2013, instrument ICPE. One blank and one standard initially per analytical batch. ICV initially, and CCV every 10 samples and at end of run. CRI after initial calibration blank analysis. • 245.1: 06/28/2013, instrument LEEMAN2. 6-Point ICAL per analytical batch. ICV initially, CCV every 10 samples and at end of run. CRI after initial calibration blank analysis. • 6010C: 06/28/2013-06/29/2013, instrument ICPE. One blank and one standard initially	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
end of the analytical run ○ 7196A: • ICAL: Blank and minimum of five standards • ICV initially, and CCV every 10th sample (15th per Method) and at the end of the analytical run				per analytical batch. ICV initially, and CCV every 10 samples and at end of run. CRI after initial calibration blank analysis. • 7471B: 06/28/2013-06/29/2013, instrument LEEMAN2. 6-Point ICAL per analytical batch. ICV initially, CCV every 10 samples and at end of run. CRI after initial calibration blank analysis.	
17. Were these results within lab/project specifications? ○ 6010C • ICV/CCV (Criteria: 90-110%R): ▪ If %R <75, then J- flag positive results and R-flag non-detects ▪ If 75-89%R, then J- flag positive results and UJ flag non-detects ▪ If 111-125%R, then J flag positive results ▪ If >125%R, then J+ flag positive results ▪ If >160%R, then R flag positive results • CRI (Method: 70-130%R, Laboratory: 50-150%R; Project: 50-150%R for Sb, Pb, and Tl, and 70-130%R for all other analytes): ▪ If CRI %R <50 (<30% for Sb, Pb, TL), then R flag results ≤ 2x RL and J flag positive results >2x RL ▪ If CRI %R 50-69% (30-49% for Sb, Pb, TL), then J- and UJ flag positive results <2x RL and ND, respectively ▪ If CRI %R >130% and ≤180% (>150%, but ≤200% for Sb, Pb, TL), then J+ flag positive results <2x RL ▪ If CRI %R >180% (>200% for Sb, Pb, TL), then R flag positive results ○ 7471A • ICV/CCV (Criteria: 80-120%R): ▪ If correlation coefficients <0.995, then J and UJ flag positive and non-detect results. ▪ If %R <65, then J- flag positive results and R-flag non-detects ▪ If 65-79%R, then J- flag positive results and UJ flag non-detects ▪ If 121-135%R, then J flag positive results ▪ If >135%R, then J+ flag positive results ▪ If >170%R, then R flag positive results • CRI (Method: Not required, Laboratory: 50-150%R, Project: 70-130%R):		✓		Mercury correlation coefficient: • 245.1: ICAL of 06/28/2013 is 0.9998546 (page 306) • 7471B: ICAL of 06/28/2013 is 0.9998696 (page 308) According to the Case Narrative, the recovery (107%R) of the ICV was greater than laboratory upper control limit (105%R) in EPA Method 245.1 analytical batch 680-282532. Project specifications of 80-120%R were met; therefore, qualification of data is not required. In addition, a high bias is indicated by the high ICV recovery and mercury was not detected in the associated sample (i.e., 062513-RB-Shovel, 680-91719-35).	

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
▪ If CRI %R <50, then R flag results ≤ 2x RL and J flag positive results >2x RL ▪ If CRI %R 50-69%, then J- and UJ flag positive results <2x RL and ND, respectively ▪ If CRI %R >130% and ≤180%, then J+ flag positive results <2x RL ▪ If CRI %R >180%, then R flag positive result o 7196A: • ICV/CCV (Criteria: 90-110%R): ▪ If correlation coefficients <0.995, then J and UJ flag positive and non-detect results. ▪ If %R <65, then J- flag positive results and R-flag non-detects ▪ If 65-90%R, then J- flag positive results and UJ flag non-detects ▪ If 110-135%R, then J flag positive results ▪ If >135%R, then J+ flag positive results ▪ If >170%R, then R flag positive results					
18. Was the interference check sample (ICS) analyzed at the beginning of each ICP analytical run?	✓				
19. Are ICS recoveries within 80-120% of the true value? If not, qualify data as follows when native Al, Fe, Ca, and Mg sample concentrations are equal to or greater than the ICS spiking level: o If >120%R (or >true value plus 2x CRQL), J+ flag positive results o If 50-79%R (or less than true value – 2x the CRQL), J- flag positive results and UJ flag non-detects o If <50%R, J- flag positive results and R-flag non-detects	✓				
20. Was a LCS analyzed for each preparation batch (one per 20 samples per matrix and level)?	✓				
21. Did LCS recoveries meet method/laboratory/project (80-120%R) specifications? o Soil: • LCS result > Upper control limit (UCL): J+ flag positive results • LCS result < Lower control limit (LCL): J- flag positive results and UJ flag non-detects o Aqueous: • If <50%R, then J- and R flag positive and ND results, respectively • If 50-LCL%R, J- and UJ flag positive and ND results, respectively • >UCL: J+ Flag positive results	✓				

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
• >150%R: R Flag results					
22. Was the RPD between LCS and LCSD results within method/laboratory /project control limits (≤20%RPD)? If not, J and UJ flag positive and non-detect results, respectively			✓	LCS only	
23. Was a Matrix Spike (MS) and Matrix Spike Duplicate (MSD) analyzed once per preparation batch?	✓				
24. Is the MS and MSD parent sample a project-specific sample?	✓	✓		• 200.7, Prep Batch 282403: 460-58558-1 (Batch Sample), MS/MSD • 245.1, Prep Batch 282329: 680-91707-2 (Batch Sample), MS/MSD • 6010C, Prep Batch 282334: 680-91719-1 (CV1363AB-GS), MS/MSD • 7471B, Prep Batch 282375: 680-91719-1 (CV1363AB-GS), MS/MSD	
25. Was a post-digestion spike (PDS) analysis conducted when MS and/or MSD results did not meet control limits (Note: PDS is not required for silver)?	✓			• 200.7: 460-58558-1 (Batch Sample) • 6010C: 680-91719-1 (CV1363AB-GS)	
26. For all analytes with sample concentration < 4 x spike concentration, are spike recoveries within method (6010C: 75-125%R MS/MSD and 80-120%R PDS; 7471B: 80-120%R MS/MSD and PDS not required), laboratory (MS, MSD, and PDS: 75-125%R), and project (as noted below) specifications? *Only QC results for project samples that are reported under this Job ID are evaluated.* If not, ○ 6010C: • If MS %R <30 and PDS %R <75, then J- and R Flag positive and ND results, respectively • If MS %R <30 and PDS %R >75, then J flag positive and UJ flag non-detect results • If MS and MSD %R 30-74 and PDS%R <75, then J- flag positive and UJ flag non-detect results • If MS and MSD %R 30-74 and PDS%R ≥75, then J flag positive and UJ flag non-detect results • If MS, MSD, and PDS %R >125, J+ flag positive results • If MS and MSD %R >125 and PDS %R ≤125, then J flag positive results • If MS and MSD %R <30 and no PDS, then J- flag positive		✓		CV1363AB-GS (680-91719-1): • Arsenic @ 33 and -37 %R (75-125). PDS recovery (103%) fell within control limits (75-125). J Flag sample result. • Barium @ -400 and -671 %R (75-125). An evaluation of interference is not possible based on MS and MSD results[2]. PDS recovery (93%) fell within control limits (75-125). • Cadmium @ 61 and 37 %R (75-125). PDS recovery (95%) fell within control limits (75-125). J Flag sample result. • Chromium @ 4 and -75 %R (75-125). PDS recovery (93%) fell within control limits (75-125). J Flag sample result. • Lead @ -657 and -1682 %R (75-125). PDS recovery (88%) fell within control limits (75-125). An evaluation of interference is not possible[2]. • Selenium @ 73 and 54 %R (75-125). PDS	J, UJ

[2] The native sample concentration is greater than 4x the MS/MSD spiking level. In addition, the lead native sample concentration is greater than 4x the PDS spiking level.

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
and R-flag non-detect results • If MS and MSD %R 30-74 and no PDS, then J- and UJ flag positive and non-detect results, respectively • If MS and MSD %R >125 and no PDS, then J+ flag positive results o 7471B: • If MS %R <30, then J- and R Flag positive and ND results, respectively • If MS and MSD %R 30-74, then J- flag positive and UJ flag non-detect results • If MS and MSD %R >125, then J+ flag positive results				recovery (101%) fell within control limits (75-125). UJ Flag non-detect result. • Silver @ 74 and 58 %R (75-125). PDS recovery (93%) fell within control limits (75-125). J Flag sample result.	
27. Were laboratory/project (≤20%RPD) criteria met for precision during the MS and MSD analysis? *Only QC results for project samples that are reported under this Job ID are evaluated.* o If RPD >20%, J and UJ flag positive and non-detect results.		✓		CV1363AB-GS (680-91719-1): • Arsenic @ 25%RPD (≤20). J Flag • Cadmium @ 24%RPD (≤20). J Flag • Chromium @ 25%RPD (≤20). J Flag • Lead @ 27%RPD (≤20). An evaluation of interference is not possible based on MS and MSD results[2]. • Selenium @ 29%RPD (≤20). UJ Flag ND • Silver @ 23%RPD (≤20). J Flag	J, UJ
28. Was a serial dilution conducted for 6010C?	✓			• 200.7: 460-58558-1 (Batch Sample) • 6010C: 680-91719-1 (CV1363AB-GS)	
29. Is the serial dilution parent sample a project-specific sample?	✓	✓		See above	
30. Is the percent difference between the serially diluted result and undiluted result less 10% (for those analytes with native concentrations greater than 50x the DL)? *Only QC results for project samples that are reported under this Job ID are evaluated.* o If %D >10, J and UJ flag positive and non-detect results, respectively.	✓				
31. Was a laboratory duplicate analyzed?		✓			
32. Was the lab duplicate analysis conducted on a project-specific sample?			✓		
33. Were criteria for laboratory/project precision met? *Only QC results for project samples that are reported under this Job ID are evaluated.* o If RPD values >20% (35% for soil/sediment) or absolute difference > RL (2x RL for soil/sediment), then J and UJ flag positive and non-detect results, respectively.			✓		

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
34. Were lab comments included in report? If yes, summarize contents or attach a copy of the narrative.	✓			Refer to **Attachment B** (Case Narrative)	

Comments: The data validation was conducted in accordance with the *Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1* (OTIE, October 2012). The data review process was modeled after the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Data Review* (EPA 540-R-04-004, October 2004). Sample results have been qualified based on the results of the data review process (**Attachment C**). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment.

DV Flag Definitions:

J- The result is an estimated quantity, but the result may be biased low.

J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ The result is an estimated quantity, but the result may be biased high.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.

UJ The analyte was analyzed for, but was not detected. The reported limit is approximate and may be inaccurate or imprecise.

ATTACHMENT A

SAMPLE SUMMARY

Sample Summary

Client: Oneida Total Integrated Enterprises LLC
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-91719-3
SDG: 68091719-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-91719-1	CV1363AB-GS	Solid	06/24/13 12:45	06/26/13 08:35
680-91719-10	CV1363F-CS	Solid	06/24/13 14:07	06/26/13 08:35
680-91719-14	CV1363I-CS	Solid	06/25/13 07:51	06/26/13 08:35
680-91719-26	CV1363S-CS	Solid	06/25/13 11:10	06/26/13 08:35
680-91719-31	CV1363AB-GS (sieve)	Solid	06/24/13 12:45	06/26/13 08:35
680-91719-32	CV1363F-CS (sieve)	Solid	06/24/13 14:07	06/26/13 08:35
680-91719-33	CV1363I-CS (sieve)	Solid	06/25/13 07:51	06/26/13 08:35
680-91719-34	CV1363S-CS (sieve)	Solid	06/25/13 11:10	06/26/13 08:35
680-91719-35	062513-RB-Shovel	Water	06/25/13 10:30	06/26/13 08:35

ATTACHMENT B

CASE NARRATIVE

Job ID: 680-91719-3

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: Oneida Total Integrated Enterprises LLC

Project: 35th Avenue Superfund Site

Report Number: 680-91719-3

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 06/26/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.7 C.

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): 062513-RB-Shovel (680-91719-35). Sample was listed on COC by laboratory.

METALS (ICP)
Sample 062513-RB-Shovel (680-91719-35) was analyzed for Metals (ICP) in accordance with EPA Method 200.7.

TOTAL MERCURY
Sample 062513-RB-Shovel (680-91719-35) was analyzed for total mercury in accordance with EPA Method 245.1.

METALS (ICP)
Samples CV1363AB-GS (680-91719-1), CV1363F-CS (680-91719-10), CV1363I-CS (680-91719-14), CV1363S-CS (680-91719-26), CV1363AB-GS (sieve) (680-91719-31), CV1363F-CS (sieve) (680-91719-32), CV1363I-CS (sieve) (680-91719-33) and CV1363S-CS (sieve) (680-91719-34) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C.

Several analytes exceeded the recovery criteria low for the MS and MSD of sample CV1363AB-GS (680-91719-1) in batch 680-282621.

TOTAL MERCURY
Samples CV1363AB-GS (680-91719-1), CV1363F-CS (680-91719-10), CV1363I-CS (680-91719-14), CV1363S-CS (680-91719-26), CV1363AB-GS (sieve) (680-91719-31), CV1363F-CS (sieve) (680-91719-32), CV1363I-CS (sieve) (680-91719-33) and CV1363S-CS (sieve) (680-91719-34) were analyzed for total mercury in accordance with EPA SW-846 Method 7471B.

Method(s) 245.1: The initial calibration verification (ICV) for analytical batch 680-282532 recovered outside control limits for the following analytes: mercury. These analytes were biased high in the ICV and were not detected in the associated samples; therefore, the data have been reported.

Sample CV1363S-CS (680-91719-26)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

ATTACHMENT C

QUALIFIED SAMPLE RESULTS

Client Sample ID: CV1363AB-GS

Lab Sample ID: 680-91719-1

Date Collected: 06/24/13 12:45
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 69.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	39	J	2.8	0.82	mg/Kg	☼	06/27/13 14:38	06/29/13 01:53	1
Barium	320		1.4	0.41	mg/Kg	☼	06/27/13 14:38	06/29/13 01:53	1
Cadmium	3.5	J	0.69	0.14	mg/Kg	☼	06/27/13 14:38	06/29/13 01:53	1
Chromium	48	J	1.4	0.69	mg/Kg	☼	06/27/13 14:38	06/29/13 01:53	1
Lead	340		1.4	0.73	mg/Kg	☼	06/27/13 14:38	06/29/13 01:53	1
Selenium	3.5	~~U~~ UJ	3.5	1.4	mg/Kg	☼	06/27/13 14:38	06/29/13 01:53	1
Silver	0.41	~~J~~ J	1.4	0.13	mg/Kg	☼	06/27/13 14:38	06/29/13 01:53	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.39		0.026	0.011	mg/Kg	☼	06/27/13 16:37	06/28/13 17:51	1

Client Sample ID: CV1363F-CS

Lab Sample ID: 680-91719-10

Date Collected: 06/24/13 14:07
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 85.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	46		2.2	0.65	mg/Kg	☼	06/27/13 14:38	06/29/13 02:26	1
Barium	220		1.1	0.33	mg/Kg	☼	06/27/13 14:38	06/29/13 02:26	1
Cadmium	1.4		0.55	0.11	mg/Kg	☼	06/27/13 14:38	06/29/13 02:26	1
Chromium	55		1.1	0.55	mg/Kg	☼	06/27/13 14:38	06/29/13 02:26	1
Lead	260		1.1	0.58	mg/Kg	☼	06/27/13 14:38	06/29/13 02:26	1
Selenium	2.8	U	2.8	1.1	mg/Kg	☼	06/27/13 14:38	06/29/13 02:26	1
Silver	1.1	U	1.1	0.11	mg/Kg	☼	06/27/13 14:38	06/29/13 02:26	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.37		0.020	0.0081	mg/Kg	☼	06/27/13 16:37	06/28/13 17:59	1

Client Sample ID: CV1363I-CS

Lab Sample ID: 680-91719-14

Date Collected: 06/25/13 07:51
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 84.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	36		2.3	0.69	mg/Kg	☼	06/27/13 14:38	06/29/13 02:30	1
Barium	310		1.2	0.35	mg/Kg	☼	06/27/13 14:38	06/29/13 02:30	1
Cadmium	3.1		0.59	0.12	mg/Kg	☼	06/27/13 14:38	06/29/13 02:30	1
Chromium	46		1.2	0.59	mg/Kg	☼	06/27/13 14:38	06/29/13 02:30	1
Lead	460		1.2	0.62	mg/Kg	☼	06/27/13 14:38	06/29/13 02:30	1
Selenium	2.9	U	2.9	1.2	mg/Kg	☼	06/27/13 14:38	06/29/13 02:30	1
Silver	0.42	J	1.2	0.11	mg/Kg	☼	06/27/13 14:38	06/29/13 02:30	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.42		0.022	0.0092	mg/Kg	☼	06/27/13 16:37	06/28/13 18:02	1

Client: Oneida Total Integrated Enterprises LLC
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-91719-3
SDG: 68091719-3

Client Sample ID: CV1363S-CS

Lab Sample ID: 680-91719-26
Date Collected: 06/25/13 11:10
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 88.3

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	46		2.2	0.64	mg/Kg	☼	06/27/13 14:38	06/29/13 02:35	1
Barium	230		1.1	0.33	mg/Kg	☼	06/27/13 14:38	06/29/13 02:35	1
Cadmium	0.78		0.54	0.11	mg/Kg	☼	06/27/13 14:38	06/29/13 02:35	1
Chromium	30		1.1	0.54	mg/Kg	☼	06/27/13 14:38	06/29/13 02:35	1
Lead	170		1.1	0.58	mg/Kg	☼	06/27/13 14:38	06/29/13 02:35	1
Selenium	2.7	U	2.7	1.1	mg/Kg	☼	06/27/13 14:38	06/29/13 02:35	1
Silver	1.1	U	1.1	0.10	mg/Kg	☼	06/27/13 14:38	06/29/13 02:35	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.80		0.10	0.042	mg/Kg	☼	06/27/13 16:37	06/29/13 13:47	5

Client Sample ID: CV1363AB-GS (sieve)

Lab Sample ID: 680-91719-31
Date Collected: 06/24/13 12:45
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 70.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	39		2.8	0.83	mg/Kg	☼	06/27/13 14:38	06/29/13 02:40	1
Barium	300		1.4	0.42	mg/Kg	☼	06/27/13 14:38	06/29/13 02:40	1
Cadmium	3.5		0.70	0.14	mg/Kg	☼	06/27/13 14:38	06/29/13 02:40	1
Chromium	45		1.4	0.70	mg/Kg	☼	06/27/13 14:38	06/29/13 02:40	1
Lead	350		1.4	0.74	mg/Kg	☼	06/27/13 14:38	06/29/13 02:40	1
Selenium	3.5	U	3.5	1.4	mg/Kg	☼	06/27/13 14:38	06/29/13 02:40	1
Silver	0.46	J	1.4	0.13	mg/Kg	☼	06/27/13 14:38	06/29/13 02:40	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.38		0.026	0.011	mg/Kg	☼	06/27/13 16:37	06/28/13 18:07	1

Client Sample ID: CV1363F-CS (sieve)

Lab Sample ID: 680-91719-32
Date Collected: 06/24/13 14:07
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 84.6

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	38		2.2	0.66	mg/Kg	☼	06/27/13 14:38	06/29/13 02:44	1
Barium	230		1.1	0.33	mg/Kg	☼	06/27/13 14:38	06/29/13 02:44	1
Cadmium	1.8		0.56	0.11	mg/Kg	☼	06/27/13 14:38	06/29/13 02:44	1
Chromium	36		1.1	0.56	mg/Kg	☼	06/27/13 14:38	06/29/13 02:44	1
Lead	290		1.1	0.59	mg/Kg	☼	06/27/13 14:38	06/29/13 02:44	1
Selenium	2.8	U	2.8	1.1	mg/Kg	☼	06/27/13 14:38	06/29/13 02:44	1
Silver	0.11	J	1.1	0.11	mg/Kg	☼	06/27/13 14:38	06/29/13 02:44	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.43		0.022	0.0090	mg/Kg	☼	06/27/13 16:37	06/28/13 18:10	1

Client Sample Results

Client: Oneida Total Integrated Enterprises LLC
Project/Site: 35th Avenue Superfund Site

TestAmerica Job ID: 680-91719-3
SDG: 68091719-3

Client Sample ID: CV1363I-CS (sieve)

Lab Sample ID: 680-91719-33
Date Collected: 06/25/13 07:51
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 83.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	33		2.2	0.65	mg/Kg	☼	06/27/13 14:38	06/29/13 02:49	1
Barium	240		1.1	0.33	mg/Kg	☼	06/27/13 14:38	06/29/13 02:49	1
Cadmium	2.0		0.55	0.11	mg/Kg	☼	06/27/13 14:38	06/29/13 02:49	1
Chromium	42		1.1	0.55	mg/Kg	☼	06/27/13 14:38	06/29/13 02:49	1
Lead	360		1.1	0.58	mg/Kg	☼	06/27/13 14:38	06/29/13 02:49	1
Selenium	2.7	U	2.7	1.1	mg/Kg	☼	06/27/13 14:38	06/29/13 02:49	1
Silver	0.31	J	1.1	0.10	mg/Kg	☼	06/27/13 14:38	06/29/13 02:49	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.41		0.023	0.0094	mg/Kg	☼	06/27/13 16:37	06/28/13 18:18	1

Client Sample ID: CV1363S-CS (sieve)

Lab Sample ID: 680-91719-34
Date Collected: 06/25/13 11:10
Matrix: Solid
Date Received: 06/26/13 08:35
Percent Solids: 89.9

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	31		2.0	0.58	mg/Kg	☼	06/27/13 14:38	06/29/13 02:54	1
Barium	150		0.98	0.30	mg/Kg	☼	06/27/13 14:38	06/29/13 02:54	1
Cadmium	0.66		0.49	0.098	mg/Kg	☼	06/27/13 14:38	06/29/13 02:54	1
Chromium	24		0.98	0.49	mg/Kg	☼	06/27/13 14:38	06/29/13 02:54	1
Lead	180		0.98	0.52	mg/Kg	☼	06/27/13 14:38	06/29/13 02:54	1
Selenium	2.5	U	2.5	0.98	mg/Kg	☼	06/27/13 14:38	06/29/13 02:54	1
Silver	0.98	U	0.98	0.095	mg/Kg	☼	06/27/13 14:38	06/29/13 02:54	1

Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.31		0.021	0.0088	mg/Kg	☼	06/27/13 16:37	06/28/13 18:20	1

Client Sample ID: 062513-RB-Shovel

Lab Sample ID: 680-91719-35
Date Collected: 06/25/13 10:30
Matrix: Water
Date Received: 06/26/13 08:35

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	20	U	20	4.6	ug/L		06/27/13 17:55	06/28/13 15:56	1
Barium	10	U	10	2.3	ug/L		06/27/13 17:55	06/28/13 15:56	1
Cadmium	5.0	U	5.0	2.0	ug/L		06/27/13 17:55	06/28/13 15:56	1
Chromium	10	U	10	1.2	ug/L		06/27/13 17:55	06/28/13 15:56	1
Lead	10	U	10	4.0	ug/L		06/27/13 17:55	06/28/13 15:56	1
Selenium	20	U	20	6.4	ug/L		06/27/13 17:55	06/28/13 15:56	1
Silver	10	U	10	0.89	ug/L		06/27/13 17:55	06/28/13 15:56	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	U	0.20	0.091	ug/L		06/27/13 14:22	06/28/13 14:05	1